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REMARKS/ARGUMENTS**Amendments to the Specification**

The Summary has been amended for consistency with amendments made to the description and claims.

The letter "T" has been deleted on page 2, line 7 of the specification in response to the Examiner's identification of this clerical error as noted on page 2 of the Office Action.

The Brief Description of the Drawings section has been amended to properly identify the drawings subsequent to amendments made to the figures. In particular, Figure 1 has been identified as including a carrier pack, a shelf and optical modules. Also, Figures 2 and 3 have been identified as being side and top views, respectively of an optical module.

The Detailed Description section has been amended to clarify aspects that were improperly labelled or identified. Amendments made to the Detailed Description include the "optical back plane" being labelled with new identifier 11 and the numerical identifier 16 being associated with the "switch shelf" on page 3, line 18. "Face plate 20" on page 3, line 25 has been replaced with "split face plate 20" to clarify that the face plate is comprised of two portions, both of which were originally shown in Figure 1, but only one of which was specifically identified. The inconsistent language associated with numerical identifier 32 ("connectors" on page 3, line 26, "mating features" on page 3, line 28, and "connector slots" on page 4, line 31) has been replaced with "connector access holes" which were shown in original Figure 1 and are easily identifiable in amended Figure 4.

Another amendment to the Detailed Description is the description of Figure 6. The description was amended to describe the manner of connection between the optical modules and the carrier pack. The description has been amended to reflect the concept of a female connector on the carrier pack and a male connector on the optical module that was shown in original Figure 6. Figure 6 has been amended as described above for consistency with this description.

These represent a few examples of amendments made to the specification. It is submitted that no new matter has been added to the specification. The amendments are intended to clarify

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existing features found in the original specification and drawings, and to provide consistency of terminology used in the description of the features.

Amendments to Drawings

Figures 1 to 8 have been amended.

With regard to the Examiner's statement on page 3 of the Office Action that the drawings do not clearly shown the limitations of claims 1 and 2, it is submitted that the limitations of claims 1 and 2 are now clearly shown in the replacement drawings. Amended claim 1 recites "a carrier pack (14) comprising a housing unit (17) having multiple slots (30) configured to accept optical modules (12); a stack interconnect (104, 106, 108), having a connector (117, 119, 140, 144) associated with a slot (30) of the multiple slots (30) of the housing unit (17); a carrier pack connector (26) electrically coupled to the connector (117, 119, 140, 144) of the stack interconnect (104, 106, 108)".

Claim 2 recites "the carrier pack of claim 1, further comprising: a main circuit board (68) to supply an electrical path to couple the carrier pack connector (26) to the connector (117, 119, 140, 144) of the stack interconnect (104, 106, 108)".

The numerical identifiers have been added to the claim language to show that all the features of the claims can be found in the drawings.

The male and female portions of the mezzanine connectors as recited in claims 8, 9 and 11 have been added to the Figures 5 and 6 in response to the Examiner's identification on page 3 of the Office Action of these features not being shown in the drawings.

Status of Claims

Claims 14 and 19 have been cancelled from the application.

Claims 1-13, 15-18, 20 and 21 remain in the application.

New claims 22, 23 and 24 have been added to the application. New claim 22 recites an optics pack comprising a carrier pack and a plurality of optical modules adapted to be received by the carrier pack. New claim 23 is dependent on claim 22 and recites similar subject matter to claim 3. New claim 24 recites a system comprising at least one carrier pack, a plurality of optical

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modules adapted to be received by the at least one carrier pack, and a shelf adapted to receive the at least one carrier pack.

The subject matter of new claims 22 and 24 is found in the specification, in particular at page 3, lines 17-18, as well as in Figure 1. The subject matter of claim 23 is found on page 5 at lines 3-7.

Amendments to Claims

Claim 1 has been amended to replace the term "optics pack" with "carrier pack" to more accurately reflect the invention as described in the description. The amendment is not intended as an additional limitation to the claim, but is made for the sake of clarity. Similarly, in subsequent claims the term "optics pack" has been replaced with "carrier pack".

The remaining claims have been amended by adding the word "carrier" to the preamble prior to the word "pack".

In the claims the expressions "circuit board" and "main board" have been amended for consistency to be "main circuit board".

Claim 3 has been amended by replacing "a circuit board" with "a main circuit board".

Claim 4 has been amended for clarity.

Claim 12 has been amended for consistency with terms introduced in claim 7.

Claim 15 has been amended by replacing the expression "the circuit module" with "a common set of circuitry on the main circuit board".

Oath/Declaration

A new declaration is submitted herewith that properly identifies the specification to which the declaration is directed.

35 U.S.C 102 Claim Rejections

The Examiner has rejected claims 1-13 and 15-20 under 35 U.S.C. 102(e) as being anticipated by Hayashi (U.S. Patent No. 6,545,611).

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The Examiner alleges that Hayashi discloses all the features of claim 1. In particular, a housing unit having multiple slots configured to accept optical modules is disclosed in Hayashi at column 4, lines 61-64. A stack interconnect having a connector associated with a slot of the multiple slots of the housing unit is disclosed in Hayashi by connector C2a in Figure 2. An optics pack connector electrically coupled to the connector of the stack interconnect is disclosed by connector C2b in Figure 2.

Claim 1 in its original form recites an optics pack having multiple slots configured to accept optical modules. In amended claim 1 "the optics pack" has been replaced with "the carrier pack". As described in the description on page 3 at lines 17-20, "carrier pack 14 having slots 30 to accept optical modules 12. Multiple ones of the optical modules 12 may be connected to the carrier pack 14". The carrier pack 14 is adapted to be included in a switch shelf. The switch shelf is adapted to receive a plurality of such carrier packs. As shown in Figure 1, the carrier pack has four individual slots, three of which are shown to already contain optical modules and one of which that is currently available to receive optical module 12.

Hayashi discloses a subrack 3 comprising eleven slots, whereby some of the slots are adapted to receive up to two separate transmission units (PIU units). In column 4, lines 52-54 Hayashi discloses that the PIU units "are composed of a sub-printed circuit board 10 and a main printed circuit board 20". The main printed circuit board 20 is used to house the sub-printed circuit board 10 and connects with a BWB mounted on the subrack 3. The only realistic comparison that could be made between Hayashi and the present application is that main printed circuit board 20 could be compared to the carrier pack recited in claim 1. However, the main printed circuit board 20 disclosed by Hayashi does not include "multiple slots configured to accept optical modules". Each main printed circuit board 20 contains a single slot that receives a single sub-printed circuit board 10.

In the interest of providing a proper comparison between the features recited in claim 1 and what the Examiner states can be found in Hayashi, it should be noted that the Examiner has inaccurately compared features disclosed by Hayashi with those recited in the present application. In claim 1, The Examiner compares the connector associated with a slot of the multiple slots of the housing unit with connector C2a as disclosed by Hayashi. A more

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appropriate comparison would be connector C3a as disclosed by Hayashi. Similarly, a carrier pack connector electrically coupled to a connector of a stack interconnect as recited in claim 1 and compared by the Examiner to connector C2b as disclosed by Hayashi, would more appropriately be compared to connector C3a as disclosed by Hayashi.

It is submitted that since Hayashi does not disclose all the features of a carrier pack that has "multiple slots configured to accept optical modules", Hayashi cannot anticipate all the features recited in claim 1. Therefore, it is respectfully requested that the Examiner reconsider, and withdraw the anticipation rejection of claim 1.

Claims 2-13, 15-18 and 20 are dependent on claim 1 or intervening claims dependent on claim 1. As these claims depend from a claim that should be allowable, these claims should also be allowable.

In addition, it is alleged in the Office Action that claim 3 is anticipated by Hayashi. Applicant submits that Hayashi does not disclose "a main circuit board to supply an electrical path to couple the carrier pack connector to the connector of the stack interconnect and configured to convert a first signaling rate associated with an optical module that is inserted into the slot to a second signaling rate associated with a device coupled to the carrier pack connector". The Examiner has not indicated where this feature is disclosed in the Hayashi reference and as the Applicant contends it is not disclosed in Hayashi it is respectfully requested that for at least the reasons described above, the objection to claim 3 should be withdrawn.

With regard to claims 17 and 18, the Examiner has not indicated where the feature of a heat sink is disclosed in the Hayashi reference. The Applicant contends that a heat sink is not disclosed in Hayashi and it is respectfully requested that for at least the reasons described above the objection to claims 17 and 18 should be withdrawn.

35 U.S.C 102 Claim Rejections

The Examiner has rejected claims 14 and 21 under 35 U.S.C. 103(a) as being unpatentable over Hayashi.

Claim 14 has been cancelled, therefore the Examiner's objection is moot.

With regard to claim 21, the claim is dependent on claim 20 and claim 20 is dependent on

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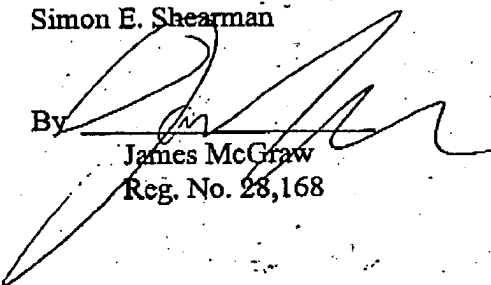
claim 1. As all the features of claim 1 are not disclosed by Hayashi, and as the Examiner is relying on all of the features that are recited in claim 1 to be taught by Hayashi in the obviousness rejection of claim 21, it is submitted that the Examiner has not satisfied at least one of the three criteria for establishing a prima facie case of obviousness, namely that all of the features be disclosed by the cited references. The Examiner further alleges that it would have been obvious at the time of the invention for Hayashi to have status indicators on a faceplate, even though there is no suggestion or disclosure of desiring or using such indicators in Hayashi. For at least the above reasons, it is submitted that claim 21 patentably distinguishes over Hayashi and it is respectfully requested that the Examiner reconsider and withdraw the objection to claim 21.

In view of the foregoing, early favorable consideration of this application is earnestly solicited.

Respectfully submitted,

Simon E. Shearman

By


James McGraw
Reg. No. 28,168

Ottawa, Ontario, Canada
Date: November 4, 2004
Tel.: (613) 232-2486
JMC:MSS:nea:aba

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